BRUHAT BANGALORE MAHANAGARA PALIKE

MODIFIED ESTIMATE

Name of Work: Augmentation of Water Supply through Borewell, network of piplines and ground water recharge facilities in ward no. 05 & 06 (Package No-3) (Package Consists of 6 Works)

Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its quality & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etccomplete as per specifications and directions of Engineer in charge of work.								
		Each BW							
			47				47.00		
							47.00		
					Upto 125%		**45.00**	**4074.70**	**183361.50**
					Above 125%		**2.00**	**4074.70**	**8149.40**
	Approved Amount	**4074.70**							
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars and cap etc.,) ,with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.0 to 50								
		Rmtr							
	0 to 50m		47	50.00			2350.00		
							2350.00		
					Upto 125%		**2250.00**	**375.24**	**844290.00**
					Above 125%		**100.00**	**375.24**	**37524.00**
	Approved Amount	**375.24**							
3	50 to 100								
		Cum							
			47	50.00			2350.00		
							2350.00		
					Upto 125%		**2250.00**	**477.98**	**1075455.00**
					Above 125%		**100.00**	**477.98**	**47798.00**
	Approved Amount	**477.98**							
4	100 to 150								
		Rmtr							
			47	50.00			2350.00		
							2350.00		
					Upto 125%		**2250.00**	**493.12**	**1109520.00**
					Above 125%		**100.00**	**493.12**	**49312.00**
	Approved Amount	**493.12**							

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Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
5	150 to 200								
		Rmtr							
			47	50.00			2350.00		
							2350.00		
					Upto 125%		2250.00	579.63	1304167.50
					Above 125%		100.00	579.63	57963.00
	Approved Amount	579.63							
6	200 to 250								
		Rmtr							
			47	50.00			2350.00		
							2350.00		
					Upto 125%		2250.00	685.61	1542622.50
					Above 125%		100.00	685.61	68561.00
	Approved Amount	685.61							
7	250 to 300								
		Rmtr							
			47	50.00			2350.00		
							2350.00		
					Upto 125%		2250.00	756.98	1703205.00
					Above 125%		100.00	756.98	75698.00
	Approved Amount	756.98							
8	300 to 350								
		Rmtr							
			47	43.45			2042.00		
							2042.00		
					Upto 125%		2042.00	892.15	1821770.30
	Approved Amount	892.15							
9	350 to 400								
		Rmtr							
			47	17.66			830.00		
							830.00	973.26	807805.60
	Approved Amount	973.26							
10	Supply of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) ,with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.								
		Rmtr							
			47	37.81			1776.96		
							1776.96	1432.85	2546117.14
	Approved Amount	1432.85							
11	Providing and fixing 250mm dia PVC Pipe and as per specification complete as per specifications and directions of Engineer in charge of work.								
		Rmtr							
			47	13.60			639.00		
							639.00		

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Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
					Upto 125%		450.00	2313.34	1041003.00
					Above 125%		189.00	2313.34	437221.26
	Approved Amount	**2313.34**							
12	175mm dia M.S. Casing capcomplete as per specifications and directions of Engineer in charge of work.								
		Each							
			47				47.00		
							47.00		
					Upto 125%		45.00	108.14	4866.30
					Above 125%		2.00	108.14	216.28
	Approved Amount	**108.14**							
13	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.								
		Sq.cm							
			49	942.86	20		924000.06		
					Upto 125%		924000.00	0.37	341880.00
	Approved Amount	**0.37**							
14	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. complete as per specifications and directions of Engineer in charge of work.								
		Nos							
			38				38.00		
					Upto 125%		**38.00**	**189.24**	**7191.12**
	Approved Amount	**189.24**							
15	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any.complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
							38.00	**151.40**	**5753.20**
	Approved Amount	**151.40**							
16	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if anycomplete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
							38.00	**189.24**	**7191.12**
	Approved Amount	**189.24**							
17	Labour charges for erection as new /repaired submercible pumpset along with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00) complete as per specifications and directions of Engineer in charge of work.								
		Job							

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Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
			38				38.00		
							38.00		
					Upto 125%		**38.00**	**6109.89**	**232175.82**
	Approved Amount	**6109.89**							
18	Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing complete as per specifications and directions of Engineer in charge of work.								
		Job							
			38				38.00		
							38.00		
					Upto 125%		**38.00**	**1295.51**	**49229.38**
	Approved Amount	**1295.51**							
19	Supplying and laying of LT UG cable having aluminum conductor PVC insulated sheathed, galvanized, steel wire/steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable complete as per specifications and directions of Engineer in charge of work.								
		Rmtr							
			38	35.76			1359.00		
							1359.00	**157.49**	**214028.92**
	Approved Amount	**157.49**							
20	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. complete as per specifications and directions of Engineer in charge of work.								
		Rmtr							
			38	31.45			1195.00		
							1195.00	**12.47**	**14901.65**
	Approved Amount	**12.47**							
21	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfacescomplete as per specifications and directions of Engineer in charge of work.								
		Rmtr							
			38	33.03			1255.00		
							1255.00	**86.09**	**108042.96**
	Approved Amount	**86.09**							
22	Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm complete as per specifications and directions of Engineer in charge of work.								
		Mtr							
			38	4.00			152.00		
					Upto 125%		**152.00**	**351.72**	**53461.44**
	Approved Amount	**351.72**							
23	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit … The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia, complete as per specifications and directions of Engineer in charge of work.								
		Nos							

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Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
			38				38.00		
					Upto 125%		38.00	3928.72	149291.36
	Approved Amount	**3928.72**							
24	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class 16sqmmUG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
					Upto 125%		38.00	537.45	20423.10
	Approved Amount	**537.45**							
25	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
					Upto 125%		38.00	306.57	11649.66
	Approved Amount	**306.57**							
26	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by meansns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stagecomplete as per specifications and directions of Engineer in charge of work.								
		Each							
			13				13.00		
							13.00	95115.69	1236503.97
	Approved Amount	**95115.69**							
27	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by meansns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 17.5 HP 30 Stagecomplete as per specifications and directions of Engineer in charge of work.								
		Each							
			13				13.00		
							13.00	75725.09	984426.17
	Approved Amount	**75725.09**							
28	Providing, laying & joining GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe B Class complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38	49.55			1883.00		

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Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
							1883.00	**3004.12**	**5656757.89**
	Approved Amount	**3004.12**							
29	Supplying of submersible pump cable 1X3X6 Sqmm complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38	595.84			22642.00		
							22642.00	**215.23**	**4873237.62**
	Approved Amount	**215.23**							
30	Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
					Upto 125%		**38.00**	**22047.90**	**837820.20**
	Approved Amount	**22047.90**							
31	Supplying & delivery of brand 50mm Gate Valve. complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
					Upto 125%		**38.00**	**1286.86**	**48900.68**
	Approved Amount	**1286.86**							
32	Supplying & delivery of brand 50mm Non Return Valve. complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
					Upto 125%		**38.00**	**1270.64**	**48284.32**
	Approved Amount	**1270.64**							
33	Supplying and fixing MCB complete as per specifications and directions of Engineer in charge of work.								
		Each							
			38				38.00		
					Upto 125%		**38.00**	**1108.43**	**42120.34**
	Approved Amount	**1108.43**							
34	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications and directions of Engineer in charge of work.								
		Cum							
			1	13443.00	0.60	0.75	6033.22		
							6033.22	**332.76**	**2007613.75**
	Approved Amount	**332.76**							

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Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
35	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete as per specifications and directions of Engineer in charge of work.								
		Rmtr							
			1	13443.00			13443.00		
							13443.00	**133.01**	**1788053.43**
	Approved Amount	**133.01**							
36	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications and directions of Engineer in charge of work.								
		Cum							
			1	13443.00	0.60	0.75	6033.22		
							6033.22	**134.66**	**812433.19**
	Approved Amount	**134.66**							
37	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. complete as per specifications and directions of Engineer in charge of work. Cutting Asphalt Road Surface								
		Item not Executed							
38	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
39	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr complete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
40	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., ccomplete as per specifications and directions of Engineer in charge of work.specifications with all lead and lifts for Foundation of steining.								
		Item not Executed							
41	100 mm and down nominal size complete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
42	40 mm nominal size stone aggregatescomplete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
43	20 mm nominal size stone aggregates complete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							

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Sl No	Description of work	Unit	No	Length m	Breadth m	Depth m	Quantity	Rate in Rs	Amount in Rs
44	6 mm nominal size stone aggregates complete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
45	Providing and filling sand complete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
46	Supplying & errection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, errection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depthcomplete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
47	Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications and directions of Engineer in charge of work.								
		Item not Executed							
	EIRL								
E1	Providing Submersible Pump Set of 150mm dia suitable for borewell and confirming to IS 8034-2000; 3 Phase, SS Bowl & Impeller with low volt motor as per specification, to work site as per necessary amendments and instructions of Engineer in charge of work 17.5 HP 40 Stage								
		Each							
			10				10.00		
							10.00	**134497.33**	**1344973.35**
	Approved Amount	**134497.33**							
E2	Providing Submersible Pump Set of 100mm dia suitable for borewell and confirming to IS 8034-2000; 3 Phase, SS Bowl & Impeller with low volt motor as per specification, to work site as per necessary amendments and instructions of Engineer in charge of work 10 HP 100 Stage								
		Each							
			2				2.00		
							2.00	150841.34	301682.68
	Approved Amount	**150841.34**							
								Construction Cost	**35964654.09**
								GST @ 18%	**6473637.74**
								BESCOM Deposit Charges	**900854.00**
								Total	**43339145.83**

Technical Sanction
Accorded For ..... Rs 1433814/-
Head of A/C D3803
CER NO :..24..... Dt:03/06/24

Assistant Engineer
Byatarayanapura Division
BBMP

Assistant Executive Engineer
Byatarayanapura Division
BBMP

Executive Engineer
Byatarayanapura Division
BBMP

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